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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 09/922,095  | 08/03/2001  | Michael H. Myers     | 2807.2.23           | 8705             |
| 35430   | 7590        | 09/07/2005           | EXAMINER            |                  |
| GARY L. EASTMAN<br>707 BROADWAY STREET, SUITE 1800<br>SAN DIEGO, CA 92101 |             |                      | NGUYEN, BRIAN D     |                  |
|   |             |                      | ART UNIT            | PAPER NUMBER     |
|   |             |                      | 2661                |                  |
| DATE MAILED: 09/07/2005   |             |                      |                     |                  |

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/922,095

Applicant(s)

MYERS, MICHAEL H.

Examiner

Brian D. Nguyen

Art Unit

2661

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 03 August 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,7-12 and 17-20 is/are rejected.
- 7) ☒ Claim(s) 3-6 and 13-16 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 August 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>12/7/01</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Drawings***

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: elements 68 and 70 in figure 1. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Objections***

2. Claim 1 is objected to because of the following informalities:

Claim 1, line 11, it is suggested to insert --the impulses of-- between "encode" and "the first odd channel".

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Art Unit: 2661

4. Claims 7-8 and 17-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 7 recites the limitation “the first even signal” in line 2, “the first odd signal” in line 4, “the second even signal” in line 6, and “the second odd signal” in line 8. There are insufficient antecedent basis for these limitations in the claim.

Claim 17 recites the limitation “the first even signal” in line 2, “the first odd signal” in line 3, “the second even signal” in line 4, and “the second odd signal” in line 5. There are insufficient antecedent basis for these limitations in the claim.

#### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1, 9-11, and 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Buehrer et al (6,515,978) in view of Shull et al (6,625,227).

Regarding claims 1, 9-11, and 19-20, Buehrer discloses a method and apparatus comprising a carrier medium carries first and second baseband signals (input signals of the transmitter in figure 4); a first and second commutators receive signals and divide the signals into first/second odd channel and first/second even channels each having half the base rate (see, for example, even and odd channels in figures 4 and 5 where the received signal is divided into

Art Unit: 2661

even and odd channels); first/second/third/fourth filters encode first/second odd/even channels with orthogonal codes (see, for example, Walsh function 418, 420, 422, 424 in figure 4).

Buehrer does not specifically disclose the baseband signal is converted into series of impulses.

However, converting between baseband signal and impulses is well known in the art. Shull discloses converting the baseband signal into series of impulses (see, for example, impulse generator 112 in figure 2). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to convert the baseband signal to the series of impulses as taught by Shull in the system of Buehrer to meet the specific needs because this is a standard feature in communication.

7. Claims 2 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Buehrer in view of Shull as applied to claims 1 and 11 above, and further in view of Rowitch et al (6,628,702).

Regarding claims 2 and 12, Buehrer does not specifically disclose a first combiner combining the first and second even channels and a second combiner combining the first and second odd channels into first/second signal. However, Rowitch discloses this feature (see 440 of figure 4). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine even and odd channels as taught by Rowitch in the system of Buehrer in order to meet the design criteria of a particular implementation.

***Allowable Subject Matter***

Art Unit: 2661

8. Claims 3-6 and 13-16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. Claims 7-8 and 17-18 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

### ***Conclusion***

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

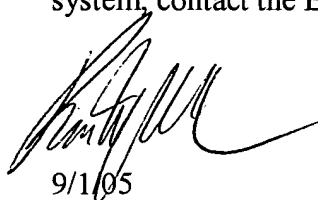
Dabak et al (6,831,943) and Jett et al (6,421,389)..

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian D. Nguyen whose telephone number is (571) 272-3084. The examiner can normally be reached on 7:30-6:00 Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau Nguyen can be reached on (571) 272-3126. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2661

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



9/1/05

**BRIAN NGUYEN**  
**PRIMARY EXAMINER**